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BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In re:

Amendment of Sections 73.606 and 73 622, Tables of Allotments TV and DTV Broadcast Stations El Dorado, Arkansas	))))))	MM Docket No.

To: The Secretary, FCC
Attn: Chief, Allocations Branch
Policy and Rules Division

PETITION FOR RULEMAKING

Arkansas Educational Television Commission ("AETC"), by its counsel and pursuant to Section 1.420 of the Commission's Rules, hereby requests that the Commission institute a rulemaking proceeding to amend Sections 73.606 and 73.622 of its Rules to substitute DTV Channel *12 for unpaired NTSC TV Channel *30 (soon to be DTV Channel *30) at El Dorado, Arkansas.

AETC is the permittee of unpaired NTSC station KETZ, Channel *30 at El Dorado. As explained in Section II. B., *infra.*, applicants granted unpaired analog television permits, such as AETC for Station KETZ, are allowed to initially construct either analog or digital facilities (but must cease any analog operation by the end of the digital transition period) and may, "upon application to the Commission, convert their analog facility to DTV at any point during the transition period."[1] Accordingly, AETC has underway preparations for the filing of its minor

[1] *Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service, MM Docket No 87-268, Memorandum Opinion and Order on Reconsideration of the Fifth Report and Order*, 13 FCC Rcd 6860, 6865 ¶ 13 (1998).

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change application to convert its NTSC Channel *30 construction permit for KETZ to a DTV permit on Channel *30 However, for the reasons stated below, AETN believes that the public interest would be best served by its long-term operation of KETZ-DT on DTV Channel *12 in El Dorado. Therefore, AETN proposes herein the substitution of DTV Channel *12 at El Dorado for Station KETZ's existing Channel *30 NTSC/(soon to be) DTV authorization.

This substitution of channels would serve the public interest and would speed the transition to DTV for AETC's newly permitted analog television station KETZ in El Dorado. In addition, as the attached technical documentation demonstrates, AETC's proposed operation of KETZ on DTV Channel *12 will not cause impermissible interference to any other stations. AETC commits to applying for DTV Channel *12 modifications to its KETZ permit.

Accordingly, AETC proposes the following amendment to Sections 73.606 and 73.622(b) of the Commission's Rules:

Section 73.606 – Television

Community	Present	Proposed
El Dorado, Arkansas	10-, *30+, 43-	10-, 43-

Section 73.622 – Digital Television

Community	Present	Proposed
El Dorado, Arkansas	27	*12, 27

I. Background.

AETC, a statewide public broadcaster and a governmental entity in the State of Arkansas, is the licensee of five (5) noncommercial educational television stations: KEMV, Mountain

View, KETS, Little Rock, KAFT, Fayetteville, KETG, Arkadelphia and KTEJ, Jonesboro. AETC is also the permittee of brand new noncommercial educational television station KETZ, El Dorado, on NTSC Channel *30, that will provide important first public television service to an unserved area in southwest Arkansas. The existing stations are linked via broadcast auxiliary microwave stations to form the Arkansas Educational Television Network ("AETN"), which brings educational, cultural and informational programming, including children's programming, to the state of Arkansas. AETN is Arkansas' only statewide television network, broadcasting to 90 percent of the state. AETC has operated noncommercial educational stations in Arkansas since 1966, providing the state with noncommercial television service designed to inform, educate, motivate, entertain, enlighten and inspire.

II. The Proposed Change to the Table of Allotments Will Serve the Public Interest.

The proposed change to the DTV Table of Allotments will serve the public interest by enhancing AETC's ability to provide high quality noncommercial educational programming. First, the change from a UHF to VHF channel will result in a substantial cost savings of critical importance to a statewide noncommercial network. Second, the change from an unpaired analog television permit to a digital television permit will greatly speed AETC's transition to digital programming in El Dorado, and will provide additional savings by allowing AETC to construct one new television station facility rather than two. Third, the proposed change will aid AETC in the offering of expanded in-school educational programming to rural parts of Arkansas with its new El Dorado station.

A. The Cost Savings of Operation on Channel 12 Will Be Substantial.

The proposed substitution will allow AETC to preserve its and the Arkansas taxpayers' limited resources and better direct them towards the provision of noncommercial educational

programs and services to its constituency. By necessity, as a noncommercial educational licensee operating a statewide television network with a limited budget for the operation of multiple TV/DTV stations (now numbering six), AETC must be a careful steward of its resources, even while it seeks to offer the highest quality of public broadcasting service.

AETC has worked diligently toward the early, innovative activation of its DTV facilities In fact, with respect to its permit for its new Station KETZ in El Dorado, AETC has decided that it would be best to construct the station as a digital facility, rather than analog. Although AETC could choose to do so (by a minor modification) on the currently authorized analog Channel *30, the use of a UHF DTV channel (rather than VHF) for KETZ would cause significant financial hardship for AETC.

The substitution of DTV Channel *12 for NTSC (or DTV) Channel *30 would result in substantial financial savings for AETC. Operation of the DTV station on UHF Channel *30 with a power level of 4 mW would result in electrical utilities power costs of approximately $196,000 per year and maintenance costs of $30,000 per year. However, if VHF DTV Channel *12 is used at 10 kW, AETC's electrical utilities power and maintenance costs would be substantially less at approximately $48,000 and $2,000 per year, respectively. This cost savings of $148,000 in utilities and $28,000 in maintenance (or $176,000 total) per year is significant, especially when considering that AETC has five additional DTV stations in its state network to operate and maintain, and further considering that the duration of the DTV transition will last at least until 2006 (during which time dual analog and digital operating costs will be incurred for those five other stations).

B. The Proposed Changes to the Table of Allotments Will Facilitate a Speedy Transition to Digital Television.

In addition to the cost savings associated with the switch to a DTV VHF channel, the proposed change to the Tables of Allotments will also allow AETC to complete a faster transition to digital television for KETZ, in furtherance of the Commission's often-stated goals. As a new NTSC permittee with a permit granted after April 3, 1997, AETC is subject to the three-year construction period for its single allotment,[2] and has the option to "immediately construct either an analog or a digital station on the channel [it was] granted. [It] will not be awarded a second channel to convert to DTV but may convert on [its] single 6 MHz channel."[3] Were AETC to choose the analog option, it could "upon application to the Commission, convert their analog facility to DTV at any point during the transition period," subject to the requirement that "all NTSC service must cease at the end of the transition period."[4]

By choosing to build out its new station initially as DTV (rather than the permitted analog), AETC recognizes, as has the Commission, that "NTSC is a technology of the past that will cease to exist, [and that] authorizing new analog stations that cannot evolve to digital operation would have significant public interest costs."[5] The proposed change from analog Channel *30 to digital Channel *12 will also allow AETC to start its noncommercial educational service in El Dorado with the most feasible long-term facility. Otherwise, AETC would need to

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[2] *Order on Reconsideration of the Third Report and Order* in MM Docket No. 00-39, FCC 01-258 ¶ 9 (Rel September 17, 2001).

[3] *Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service, MM Docket No. 87-268, Memorandum Opinion and Order on Reconsideration of the Fifth Report and Order*, 13 FCC Rcd 6860, 6865 ¶ 11 (1998).

[4] Id at ¶ 13.

[5] Id.

construct the initial KETZ facility as analog station (only to face the substantial costs of a conversion to digital within a couple of years) or as a UHF digital channel (with increased operation costs).

AETC's estimated construction costs for KETZ on DTV Channel *12 are as follows: $350,000 for transmitter; $50,000 for antenna; $30,000 for transmission line; $325,000 for installation; $100,000 for building; $50,000 for HVAC system; and $15,000 for site work. If AETC were to build out an analog KETZ, only to convert to DTV at some later date, much of that $920,000 facility construction cost would need to be re-spent. By amending the Table of Allotments now to allow KETZ to operate on the available DTV VHF channel *12, AETC will proceed directly to digital broadcasting as it commences operation of its new noncommercial educational service in El Dorado, without the need for duplicative construction. Moreover, AETC will initiate service with a technical facility and frequency that eases the digital transition and offers the best long-term technical and financial plan for the state entity licensee and its viewers.

C. AETN's Early Activation of Station KETZ Will Include Educational Programming for Rural Schools.

Part of AETN's stated mission is to "offer lifelong learning opportunities to all Arkansans" and "to supply instructional programs to Arkansas' schools"[6] In furtherance of these goals, AETN's Education Division is organized to use appropriate telecommunications technology to assist Arkansas institutions to deliver information and instruction, and to teach effective use of telecommunications technology to Arkansas institutions and Arkansans. In particular, AETN's Learning Services Division provides formal educational programming to

[6] *See* http://www.aetn.org/aetn/mission.shtml.

meet the instructional and educational needs of pre-schoolers, parents, home-schooled children, K-12 students and post-secondary students.

AETN also features an extensive resource library of instructional video programs available to Arkansas public schools, in subject areas such as philosophy, social sciences, language arts, science, technology, art, literature, geography and history. Detailed information on AETN's educational program offerings and titles is available at http://www.aetn.org/education/stationbreak/childrens.htm. In addition to providing copies of instructional programs directly to educators, AETN also broadcasts instructional programming over the air from 12 A.M. to 4 A.M. five nights a week so that educators may record the programs for instructional uses at their own convenience.

AETN's post-secondary division facilitates implementation of educational technology, training and distance learning for colleges, communities and industries, and other adult learners. In addition to the use of distance learning technologies, a statewide digital satellite network, and studios for video conferencing and training, AETN broadcasts college telecourses to provide educational options for Arkansans from all over the state.

The early, financially responsible activation of KETZ, El Dorado in southern Arkansas will be of great benefit to school children and learners of all ages in that largely rural region of the state. The programming and resources offered through KETZ will allow AETN to expand its instructional offerings to an otherwise overlooked geographical area. As noted in the attached Engineering Statement, this new DTV station will provide a public broadcasting service to approximately 356,636 persons and 142,512 households. The proposed channel change and its related logistical, operational and construction cost savings would be of paramount importance to

AETC's overall financial outlook and its ability to provide its varied educational services to these new viewers in the El Dorado area.

III. The Proposed Change to the Table of Allotments Will Not Result in Impermissible Interference with Surrounding Stations.

Under Section § 73.622(f)(5) of the Commission Rules, an existing licensee with a DTV allotment may seek a change in the station's channel if the licensee demonstrates that the change "complies with the technical criteria in §73.623(c), and thereby will not result in new interference exceeding the *de minimis* standard set forth in that section . . ." AETC does not currently hold a DTV permit for Channel *30 but is in the process of obtaining one. Commission policy permits AETC to file a minor modification application to change its unpaired NTSC Channel *30 permit to a DTV Channel *30 permit. AETC plans – imminently – to file such a minor modification to convert its NTSC permit to a DTV permit for Channel *30. Accordingly, AETC requests that the Commission substitute DTV Channel *12, at a power/height combination of no more than 6 0 kW / 530 meters above ground, for NTSC/DTV Channel *30.

As the engineering statement accompanying this petition demonstrates, the proposed operation of KETZ-DT on Channel *12 with ERP of 6.0 kW (utilizing a directional antenna), an antenna radiation center above mean sea level of 569 meters, and geographical coordinates of 33-04-41 N / 92-13-41 W would in fact result in no impermissible interference to any other station. It would also comply with the community coverage requirements.

IV Conclusion

For all of these reasons, AETC requests that the Commission institute a rulemaking proceeding to amend Sections 73.606 and 73.622 of its Rules to substitute DTV Channel *12 for NTSC/DTV Channel *30 as the allotted channel for KETZ in El Dorado, Arkansas. If the Commission grants this petition and modifies the DTV Table of Allotments accordingly, AETC is committed to applying for and constructing KETZ as a DTV station on Channel *12.

Respectfully Submitted,

ARKANSAS EDUCATIONAL
TELEVISION COMMISSION

By: Allen Leibrandt

Title: Executive Director

Arkansas Educational Television Commission
350 S. Donaghey
P.O. Box 1250
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May 19, 2004

ENGINEERING STATEMENT
Of
Dennis W. Wallace
Wallace & Associates

In Support of Petition for Rulemaking
Non-Commercial Digital Television Allotment
For Petitioner

Arkansas Educational Television Commission

KETZ-DT

EL DORADO, ARKANSAS
CHANNEL 12

December 22, 2003

Prepared By:

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Waldorf, MD. 20603

Background

The Arkansas Educational Telecommunications Commission (AETC), permittee of KETZ-TV, currently holds a Construction Permit for a new Analog Television station on Channel 30 at El Dorado, Arkansas. The channel 30 analog allotment at El Dorado was not paired with a DTV allotment as part of the FCC's DTV proceedings.

This statement details the results of a search for a VHF channel on which the facility could instantly transition from Analog to Digital (DTV) operations. AETC is requesting through this Petition for Rulemaking to amend the DTV Table of allotments at El Dorado, Arkansas and substitute VHF Channel 12 for its current Analog UHF Channel 30 allotment and allow KETZ to instantly convert from an Analog to a Digital Television station.

This engineering statement has been prepared in support of a petition to amend the DTV allotment table as set forth in Section 73.622 (b) and, more specifically,

	Channel Number	
	Present	Proposed
Arkansas		
•		
•		
El Dorado	27	*12, 27
•		

Allotment Study

It is proposed to change the Channel *30 analog allotment to DTV on Channel *12 while maintaining the other allotment parameters regarding transmitter and tower location.

A study has been conducted using TechWare software utilizing the parameters and criteria from the Commission's OET Bulletin 69 to evaluate potential interference, which would be caused by operation on channel 12 at El Dorado. However, the study appended hereto demonstrates that use of a directional antenna will permit a maximum ERP of 6.0 KW while maintaining the interference within the *de minimus* limits set forth in Section 73.623 (c) (2) to other effected stations.

The study indicates that the proposed operation would increase the service loss to KTHV-DT, Little Rock, Arkansas by 1.97%. Hence, no significant increase in service loss would be expected by the proposed DTV operation on channel 12 at El Dorado. Thus, it is believed that the grant of this petition would not materially effect the service of KTHV-DT since the predicted service loss is less than the *de minimus* requirements.

Further, the study indicates that the proposed operation would increase the service loss to WJTV-TV, Jackson, Mississippi, by 1.8%. Hence, no significant increase in service loss would be expected by the proposed operation on channel 12 at El Dorado. Thus, it is believed that the grant of this petition would not materially effect the service of WJTV-TV since the predicted service loss is less than the *de minimus* requirements.

Also, the study indicates that the proposed operation would increase the service loss to KSLA-TV, Shreveport, Louisiana, by 1.36%. Hence, no significant increase in service loss would be expected by the proposed operation on channel 12 at El Dorado. Thus, it is believed that the grant of this petition would not materially effect the service of KSLA-TV since the predicted service loss is less than the *de minimus* requirements.

In addition to meeting the interference criteria, a DTV facility constructed on channel *12 at the reference coordinates would also comply with the principal city coverage requirements.

Conclusion

Channel 12 can be operated at El Dorado, Arkansas for DTV Service while complying with the Commission's service and interference requirements with the following parameters:

Channel:		12
Reference Coordinates:	33-04-41 N,	92-13-41 W
Antenna Height (RCAGL)		530 Meters
Antenna Height (RCAMSL)		569 Meters
Maximum ERP		6.0 KW
Antenna Pattern:		Directional Per Table 2
Tower Registration Number:		1039950

Certification

This statement with associated exhibits was prepared by me or under my direction. All assertions in this statement are true of my own personal knowledge except where otherwise indicated and these latter assertions are based on information from sources known reliable and believed to be true.

Submitted this 22nd day of December, 2003.

By:_____
Dennis Wallace
Wallace & Associates

INTERFERENCE STUDY REPORT

Proposed Use of Channel 12 DTV
at

EL DORADO, ARKANSAS
CHANNEL 12

December 22, 2003

Prepared By:

Dennis Wallace
Wallace & Associates
1282 Smallwood Drive
Suite 372
Waldorf, MD. 20603

Proposed Parameters:

It is proposed to use DTV Channel 12 at El Dorado, Arkansas as follows:

Channel:	12
Reference Coordinates.	33-04-41 N
	92-13-41W
Antenna Height (RCAGL)	530 Meters
Antenna Height (RCAMSL)	569 Meters
Maximum ERP	6.0 KW
Antenna Pattern:	Directional Per Table 2
Tower Registration Number:	1039950

Channel Study

A detailed analysis was undertaken to determine ERP limits and directional antenna pattern for a DTV facility operating on channel 12 using TechWare software, which utilizes the parameters and methods in OET Bulletin 69. The results of these studies with respect to interference, based on the use of the parameters listed above are summarized in Table 1. Interference to all NTSC and DTV stations meet the Commission's *de minimus* interference requirements.

TABLE 1

Station	Channel	Location	Percent New IX
KTHV-TV	11	Little Rock, AR	0.0
KAQY-TV	11	Columbia, LA	0.0
KTHV-DT	12	Little Rock, AR	1.97
WYES-TV	12	New Orleans, LA	0.0
KSLA-TV	12	Shreveport, LA	1.36
WMAE-TV	12	Booneville, MS	0.0
WJTV-TV	12	Jackson, MS	1.80
KBMT-TV	12	Beaumont, TX	0.0
KETG-TV	13	Arkadelphia, AR	0.0
KLTM-TV	13	Monroe, LA	0.10

The interference values are based upon the use of a directional antenna pattern with the relative field values listed in Table 2.

From the above table, it can be seen that implementation of channel 12 for DTV service at El Dorado, Arkansas as proposed would comply with the Commission's *de minimus* interference requirements. It is also noted that none of the above listed stations would exceed the 10% maximum aggregate interference limit.

TABLE 2.

DTV Channel 12 Antenna Pattern for KETZ

Rotation 75 degrees

Azimuth Degrees	Relative Field
0	0.574
10	0.559
20	0.617
30	0.772
40	0.894
50	0.973
60	1.000
70	0.973
80	0.894
90	0.772
100	0.619
110	0.451
120	0.287
130	0.178
140	0.178
150	0.178
160	0.178
170	0.178
180	0.178
190	0.178
200	0.178
210	0.178
220	0.178
230	0.178
240	0.287
250	0.451
260	0.619
270	0.772
280	0.894
290	0.973
300	1.000
310	0.973
320	0.894
330	0.772
340	0.617
350	0.559

The proposed DTV facility would provide service to approximately 356,636 persons and approximately 142,512 households using the OET Bulletin 69 methodology.

Certification

This statement with associated exhibits was prepared by my or under my direction. All assertions in the statement are true of my own knowledge except where otherwise indicated and these latter assertions are based on information from sources known to be reliable and are believed to be true.

Submitted this 22nd day of December, 2003.

By _____
Dennis Wallace
Wallace & Associates